

10/563902

IAP20 Rec'd PCT/PTO 06 JAN 2006

WRITING INSTRUMENT WITH INFLATABLE BLADDERS

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a writing instrument with inflatable bladders built into the barrel of the writing instrument to facilitate different sizes for a better and more comfortable gripping by a user. In particular, the present invention relates to a writing instrument where the built in bladders are inflated by pumping air into them. The writing instrument further includes a release mechanism for releasing excess air in the bladders.

2. The Prior Art

US Patent Publication 2004/0136769 to Ferrara relates to a cushioning element with a deformable bladder having a filling chamber of a particulate matter that is mounted on an article. The bladder is not however pumped with air.

US Patent 4,035,089 to Schwartz et al. relates a grip whose size is varied with an expander element carried by sleeve upon rotation of the sleeve. The bladder is mechanically increased rather than by pumping air.

SUMMARY OF THE INVENTION

It is therefore a principle object of the invention to provide a writing instrument having bladders built into the barrel of a writing instrument which can be inflated by

pumping air. In one embodiment the bladders can be inflated by clicking down on top of the writing instrument to inflate the bladders while placing one's finger over the top of the writing instrument. In another embodiment the bladders can be pumped themselves. A release button on the side of the writing instrument can be pressed to release excess air from the bladder.

Other objects of the invention will become clear and apparent from the foregoing description and accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a sectional view of the invention showing the clicker and pump handle;

FIG. 2 is a sectional view along lines A-A of FIG. 1 showing the compression spring;

FIG. 3A is another sectional view of the invention showing an air release button;

FIG 3B is a top view of FIG. 3A;

FIG. 4 A is a sectional view along lines B-B of FIG. 3A showing the one way valve;

FIG. 4B is a view along lines C-C of FIG 4A showing the air release mechanism;

FIG. 5A illustrates another feature of the invention in which release mechanism releases excess air from the bladders and shows the bladders in their un-inflated state;

FIG. 5B shows the invention of FIG. 5A with the bladders in their inflated state; and

FIG. 6A-D illustrates several different embodiments of bladders in their inflated states.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to the drawings of FIGS. 1-6D, FIG.1 shows the present invention which is comprised of a clicker and a pump handle 11, a compression spring 12, air way passages, a one way air valve 18, and air expandable bladders 16 are preferably formed of either rubber-like material or rubber material that are built into the barrel of the writing instrument.

The clicker and pump handle apparatus 11 can be pressed down by a user's finger to compress the spring 12 and pump air from the air way into the writing instrument's bladders 16 through the one way air valve 18 shown in FIGS. 4.A and 4B. Thereby inflating the air expandable bladders 16 so that the bladders go from the un-inflated state in FIG.5 A to the inflated state in FIG. 5B.

In an alternate embodiment of the invention (not shown) the pump handle is

separate from the clicker for the writing instrument 10 but otherwise operates in the same fashion described FIG. 1. Alternatively both of these embodiments can have there bladders 16 filled with air by pressing the bladders 16 and pumping them fill with air.

FIG.3. shows a release mechanism 20 located on the side of the writing instrument 10 which when pressed and held releases air from the bladders 16 until the desired amount of air is retained within the bladders.16.

The bladders 16 can have various confirmations as shown in FIGS.6 A-D showing these different bladder embodiments in their inflated states.

I do not limit myself to any particular details of construction set forth in the specification and illustrated in the accompanying drawings, as the same refers to and sets forth only certain embodiments of the invention, and it is observed that the same may be modified without departing from the spirit and scope of the claimed invention.